



# **Section I**

## ***200 Area Remediation***

### **PROJECT MANAGERS**

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## **SUMMARY**

The 200 Area Remediation consists of Central Plateau Facility (CPF) Transition, the Equipment Disposition Project, and Central Plateau Waste Site Remediation, Project Baseline Summary (PBS) RL-CP01, Work Breakdown Structure (WBS) 3.3.1.5, 3.3.1.6, 3.3.1.7, 3.3.1.8, 3.3.1.9, 3.3.1.10, 3.3.1.11, 3.3.1.12, and 3.3.1.15.

NOTE: Unless otherwise noted, all information contained herein is as of the end of September 2002.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that there are no milestones due this fiscal year.

## **TOP 5 ACCOMPLISHMENTS FOR FY 2002**

The Voluntary Protection Program Star Status was awarded to the project, then called the River Corridor Project, and now known as the Central Plateau Remediation Project (CP).

The complex transition of the Central Plateau scope from Bechtel Hanford, Inc., was completed. The CP scope was expanded to include the Groundwater Protection Project, the 200 Area Facility Disposition Project and the 233-S Facility Decommissioning and Decontamination Project.

A contaminated crane was shipped to a Nuclear Regulatory Commission licensed company for beneficial reuse, saving taxpayers \$300,000, and completing the removal of heavy equipment. In addition, the second and third of four tall cask cars were shipped from Hanford to Tennessee saving \$300,000 in disposal costs and the forty-seven thousand pound radioactive liquid waste evaporator condenser was shipped to an off-site vendor to be recycled into the Department of Energy Shield Block Program, saving \$500,000 in disposal costs.

Three of three flat cars from the base scope were shipped to the Low-level Burial Grounds

The 200 Area Facility Disposition Project completed the early (June 3, 2002) transfer of PUREX and B Plant from BHI to FH, clearing the way for the roof repairs/replacements.

## **ADDITIONAL FY 2002 ACCOMPLISHMENTS**

The non-destructive assay (NDA) characterization of the 231-Z cells was completed.

Completed roof frame erection, loading of the roof panels and installation of 40 percent of roof panels at B Plant, completed 83 percent of frame erection at 271-B, completed 97 percent of the required demolition work at PUREX, and completed roof repairs on PUREX Tunnels and 231-Z.

The C Cell pit multi-point liquid sampling was completed, and 80 percent of the field assemblies for the C Cell pit pumping system were completed as planned. In addition, the 242-T end point development and interim stabilization of the 211-S Tank Farm were completed as scheduled.

The request for proposal and subcontractor walk downs for installation of the two new CERCLA monitoring wells in the 200 West Area were completed as planned, and the 200-ZP-1 Pump & Treat drain valve leak was repaired and returned to service. The Pump & Treats continued to operate at an average annual rate of 97.5 percent availability for FY 2002.

Use of the Geoprobe and cone penetrometer for carbon tetrachloride soil vapor sampling was initiated (71 locations were sampled using the Geoprobe and 24 locations were sampled using the cone penetrometer). In addition, a decisional draft of the 200-TW-1/TW-2 Remedial Investigation Report was submitted to RL for review on schedule and the 200-MW-1 RI/FS work plan was approved by the Environmental Protection Agency (EPA).

The structural steel removal inside the 233-S Building was completed, two contamination areas were down-posted to radiological buffer areas, north and west side scaffold removal was completed and the Safety Evaluation Report (SER) implementation letter was issued to RL.

The Equipment Disposition Project completed the disposition of lead from previous year's cask cars, shipped the spent nuclear fuel box from T Plant to ATG, and provided the flat car that carried the condenser to offsite users accelerating the work scope six months, saving \$225K.

## SAFETY

All Central Plateau Remediation Project (CP) Safety and Conduct of Operations information is reported in section F.

## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### Breakthroughs

None to report.

### Opportunities for Improvement

None to report.

## UPCOMING ACTIVITIES

**Equipment Disposition Project** — Ship the Ion exchange columns by November 2002.

**Waste Sites** — Submit 200-TW-1 Scavenged Waste Group and 200-TW-2 Tank Waste Group OU RI Report to EPA & Ecology by October 30, 2002. Submit 1 200 NPL RI/FS Work Plan for the 200-IS-1 tanks/liners/pits/diversion boxes OU by December 31, 2002.

**200 Area Shutdown Facilities** — Complete installation of new roofs on PUREX & B Plant by November 30, 2002.

## MILESTONE ACHIEVEMENT FH Contract Milestones

MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status/Comments
M-15-41B	Submit 200-TW-1 and 200-TW-2 OU Remedial Investigation Report to EPA and Ecology	TPA	10/30/02			On Schedule
TRP-38-803	Complete Installation of New Roofs on PUREX & B Plant	RL	11/30/02			On Schedule
M-24-00N	Install RCRA Groundwater Monitoring Wells at Rate of up to 50 in CY 2002, if required	TPA	12/31/02			On Schedule
M-13-00M	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	TPA	12/31/02			On Schedule
M-15-38A	Submit 200-CW-1 Gable Mountain Pond/B Pond and Ditch Cooling Water Group Feasibility Study	TPA	3/31/03			On Schedule
M-15-40B	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group Remedial Investigation Report	TPA	5/31/03			On Schedule
M-16-27C	Complete 100-HR-3 Phase III, ISRM Barrier Emplacement	TPA	6/30/03			On Schedule
M-15-47	Submit a Proposed Plan to EPA and/or Ecology to conduct Remedial Action(s) for Source Control at High-Risk Waste Site(s)	TPA	6/30/03			On Schedule
M-15-39A	Complete Chemical Sewer Group Field Work Through Sample Collection and Analysis	TPA	9/30/03			On Schedule
M-13-00N	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	TPA	12/31/03			On Schedule
M-15-41C	Submit 200-TW-1 and 200-TW-2 OU Feasibility Study and Proposed Plan to EPA and Ecology	TPA	3/31/04			On Schedule
M-15-39B	Submit 200-CS-1 Chemical Sewer Group Remedial Investigation Report	TPA	5/31/04			On Schedule
M-13-00O	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	TPA	12/31/04			On Schedule
M-15-43B	Submit 200-PW-2 OU Remedial Investigation Report Including Past Practice Waste Sites in 200-PW-4 General Process Waste Group	TPA	6/30/04			On Schedule
TRP-38-802	Decontaminate and Decommission the 233-S and 233-SA Facilities	RL	6/30/04			On Schedule
M-15-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group Feasibility Study and Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group Proposed Plan	TPA	10/31/04			On Schedule
TRP-38-805	Complete Equipment Disposition Project (PUREX Cars)	RL	8/31/05			On Schedule
M-15-39C	Submit 200-CS-1 Chemical Sewer Group Feasibility Study and Submit 200 CS-1 Chemical Sewer Group Proposed Plan/Proposed RCRA Permit Modification	TPA	11/30/05			On Schedule
M-20-39	Submit 216-S-10 Pond and Ditch Closure/Post Closure Plan to Ecology	TPA	11/30/05			On Schedule
M-15-43C	Submit 200-PW-2 OU Feasibility Study and Proposed Plan/Proposed RCRA Permit Modification	TPA	12/31/05			On Schedule
M-20-33	Submit 216-A-10 Crib, 216-A-36B Crib, 216-A-37-1 Crib, and 207-A South Retention Basin Closure/ Post Closure Plans to Ecology	TPA	12/31/05			On Schedule
TRP-38-804	Complete Equipment Disposition Project (212R Cars)	RL	6/30/06			On Schedule

## PERFORMANCE OBJECTIVES

### Outcomes: Transition Central Plateau to support long-term waste management

Performance Indicator	Status
<b>FHI-M3 – 200 Area Facility Disposition</b>	
Measure 1: Disposition Surplus Buildings and Rolling Stock	
Expectation 1:	
Base: Decontaminate & Decommission (D&D) 233-S & 233-SA Facilities by September 30, 2004.	Staffing shortfalls during July 1, 2002 transition delayed initiation of fieldwork by approximately two months and unplanned work required to complete the steel removal added another four weeks to project completion. Staffing shortfalls have now been resolved, fieldwork has been initiated, and a recovery schedule is being developed. Two baseline change requests will be submitted describing impacts to the schedule and PI.
Stretch: D&D 233-S & 233-SA by June 30, 2004.	Staffing shortfalls during July 1, 2002 transition delayed initiation of fieldwork by approximately two months and unplanned work required to complete the steel removal added another four weeks to project completion. Staffing shortfalls have now been resolved, fieldwork has been initiated, and a recovery schedule is being developed. Two baseline change requests will be submitted describing impacts to the schedule and PI.
Expectation 2: Complete installation of new roofs on PUREX & B Plant by November 30, 2002.	The AMU roof is behind schedule due to unknowns in the existing roof structure. The subcontractor expects to complete the installation of the roofs by November 30, 2002.
Expectation 3:	
Base: Disposition contaminated railcars by June 30, 2006.	Recycling of the three cask cars planned for FY 2001 and FY 2002 is complete with the exception of recycling the lead from the two FY 2002 cars, which should be complete by January 1, 2003. Completed preliminary radiological surveys and equipment condition evaluations for reuse on the eleven flatcars in the PUREX Rail Cut. All other work is on hold due to lack of funding.
Stretch: Disposition contaminated railcars by August 31, 2005.	Flatcar 10 A 03562 is complete and removed from the site for unrestricted reuse. Flatcar 10 A 03620 has been released for unrestricted reuse and is ready to be removed from the site. The Spent Nuclear Fuel burial box from T Plant is at ATG being processed. The disposition of the 183K Ion Exchange Columns is forecast to be complete by mid-December.
Super stretch: Disposition contaminated railcars and heavy equipment by September 30, 2003.	

## FY 2002 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS – (\$000)

Sub-Project		BCWS	BCWP	ACWP	SV	%	CV	%	BAC
PBS CP01 WBS 3.3.1.5	Central Plateau Facility S&M	6,334	4,843	5,443	(1,490)	-24%	(600)	-12%	6,334
PBS CP01 WBS 3.3.1.7	Central Plateau Facility D&D	1,285	953	787	(333)	-26%	165	17%	1,285
PBS CP01 WBS 3.3.1.8	Central Plateau Project Management	4,117	4,117	3,180	0	0%	937	23%	4,117
PBS CP01 WBS 3.3.1.9	Equipment Disposition Project	5,199	4,385	2,124	(814)	-16%	2,261	52%	5,199
PBS CP01 WBS 3.3.1.10	Groundwater Remediation	472	472	595	0	0%	(123)	-26%	472
PBS CP01 WBS 3.3.1.11	Waste Site Assessments	1,900	1,528	817	(372)	-20%	711	47%	1,900
PBS CP01 WBS 3.3.1.12	Barrier Technology Studies	1,386	1,386	1,144	0	0%	242	17%	1,386
<b>Total 200 Area Remediation</b>		<b>20,693</b>	<b>17,684</b>	<b>14,091</b>	<b>(3,008)</b>	<b>-15%</b>	<b>3,594</b>	<b>20%</b>	<b>20,693</b>

## FY TO DATE SCHEDULE / COST PERFORMANCE

The unfavorable schedule variance of \$3.0M (15 percent) was primarily due to the B Plant/PUREX roof replacement work scope delay caused by the need to revise the Authorization Basis (AB) for PUREX and B Plant to cover the use of cranes for lifting roofing materials to the roofs and the 224-T characterization work scope delays. The favorable cost variance of \$3.6M (20 percent) is primarily due to Equipment Disposition Project work completed at a substantial savings and Central Plateau Facility D&D staffing below planned levels, which is offset by the unplanned costs related to the increase in the 224-T characterization work scope.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

### Schedule Variance Analysis: (-\$3.0M)

#### Central Plateau Facility S&M — 3.3.1.5/CP01

**Description and Cause:** The unfavorable schedule variance is primarily due to the B Plant/PUREX roof replacement work scope delay to cover the use of cranes for lifting roofing materials to the roofs, the discovery of water in 224-T C Cell, and PEC corrective actions for former PNNL facilities not completed as planned due to resources diverted to other priorities.

**Impact:** Workarounds and overtime are required for the roofs. The discovery of water in 224-T C Cell will increase the work scope and delay completion of characterization by about four months.

**Corrective Action:** An addendum to the Authorization Basis was approved by RL that allows the use of cranes and work has progressed. Activities have been re-planned to remove 224-T C Cell water, correct the source of water intrusion, and continue characterization activities. However, the variance due to water removal will remain until the baseline is updated to reflect the growth of new work scope and corresponding delays.

**Central Plateau Facility D&D — 3.3.1.7/CP01**

**Description and Cause:** The unfavorable schedule variance is primarily due to inability to obtain planned project personnel, which caused a delay in activities.

**Impact:** Short-term impact is continued schedule delay.

**Corrective Action:** Staffing shortfalls have now been resolved.

**Equipment Disposition Project — 3.3.1.9/CP01**

**Description and Cause:** The unfavorable schedule variance was primarily due to delays in the recycling two cask cars and shipment of K Basin concrete box.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

**Waste Site Assessments — 3.3.1.11/CP01**

**Description and Cause:** The unfavorable schedule variance is primarily due to delays caused by transition related activities and acquisition of equipment/contracts.

**Impact:** None.

**Corrective Action:** The work is expected to be complete during the first quarter of FY 2003.

All other schedule variances are within established thresholds.

## **Cost Variance Analysis: (+ \$3.6M)**

**Central Plateau Facility S&M — 3.3.1.5/CP01**

**Description and Cause:** The unfavorable cost variance was primarily due to Notice of Construction (NOC) related costs that were not in the original planning for 224-T, and the discovery of water in 224-T C Cell. In addition, costs related to workarounds for B Plant/PUREX roofs due to delays in crane use and higher than budgeted safety, engineering and structural analysis support were required, and roof materials were received (accrued) prior to the start of installation, making it difficult to determine and claim work performed.

**Impact:** The discovery of water in 224-T C Cell will increase the workscope/cost necessary to complete characterization. In addition, delays in crane use, design problems, and extensive overtime will increase the total cost of the project.

**Corrective Action:** Activities have been re-planned to remove water at 224-T C Cell, correct the source of water intrusion, and continue characterization activities. The B Plant/PUREX variance should improve as installation progresses.

**Central Plateau Facility D&D — 3.3.1.7/CP01**

**Description and Cause:** The favorable variance is primarily due to high level-of-effort activity in the Project Management/Support cost account, and actual staffing below planned levels, causing overstated performance relative to actual cost.

**Impact:** Positive cost variance will reduce as additional personnel are hired and material/equipment costs are committed.

**Corrective Action:** Target personnel levels attained.

**Central Plateau Facility Project Mgt — 3.3.1.8/CP01**

**Description and Cause:** The favorable cost variance is caused by Special Projects staff who have been charging to other projects most of the year.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.



#### Equipment Disposition Project — 3.3.1.9/CP01

**Description and Cause:** The favorable cost variance was primarily due to heavy equipment, flatcar and cask car work scope completed at a substantial savings and innovative disposition strategy for Ion exchange columns that is significantly less costly.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

#### Groundwater Remediation — 3.3.1.10/CP01

**Description and Cause:** The unfavorable cost variance is primarily due to a contract being set up in this account, which supports activities in WBS 3.3.1.11.

**Impact:** Current overrun will be reduced as costs are corrected.

**Corrective Action:** Complete cost transfers as appropriate to redistribute charges to the correct accounts.

#### Waste Site Assessments — 3.3.1.11/CP01

**Description and Cause:** The favorable cost variance is primarily due to pending cost transfers for subcontract cost collection during transition and planned training costs less than expected.

**Impact:** Current under run will be reduced as costs are corrected.

**Corrective Action:** Complete cost transfers as appropriate to redistribute charges to the correct accounts.

#### Barrier Technology Studies — 3.3.1.12/CP01

**Description and Cause:** The favorable variance is primarily due to lower than planned contract and labor costs.

**Impact:** None.

**Corrective Action:** No corrective action required.

## ISSUES

### Technical Issues, Regulatory, External, DOE Issues and DOE Requests

None to report.

## BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

BCR No. Level 4 WBS	Date Originated	Description	Impact		Date Approved	Status
			Days	Dollars (\$000s)		
CP01-03-001 3.3.1.7	9/6/02	233-S Structural Steel Removal	16	\$357		Replaces CP01-02-012. Incorporating comments.
CP01-03-002 3.3.1.7	9/3/02	233-S Staffing Delay and Emerging Workscope Impact	45	\$49		Replaces CP01-02-013. Incorporating comments.
CP01-03-003 3.3.1.5	5/22/02	224-T Cell Water Removal and Remediation	151	\$33		Replaces CP01-02-011. Incorporating comments.